



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,958	12/30/2003	Farhad Barzegar	1014-052 (2003-0010)	7884
26652	7590	12/12/2007	EXAMINER	
AT&T CORP. ROOM 2A207 ONE AT&T WAY BEDMINSTER, NJ 07921			MOUTAOUAKIL, MOUNIR	
			ART UNIT	PAPER NUMBER
			2619	
			MAIL DATE	DELIVERY MODE
			12/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/748,958	Applicant(s) BARZEGAR ET AL.	
	Examiner Mounir Moutaouakil	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2007.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-20 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) ☐ Notice of Informal Patent Application
 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed on 09-24-2007 has been entered and considered.

Claims 1-20 are pending in this application.

Claims 1-20 remain rejected as discussed below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, and 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hjartarson et al (WO 01/17219 A1) in view of Blomfield-Brown et al (US 6,292,840) and further in view of Mundra et al (US 2004/0032860). Hereinafter referred to as Hjartarson, Blomfield and Mundra.

Regarding claim 1, 19, and 20, Hjartarson discloses a telecommunication method. The method comprises receiving, at a subscriber interface line card, an analog signal from a POTS subscriber loop circuit (see page 5, lines 1-12. The method includes an analog front end for coupling the line card to a telephone or POTS); quantizing analog signal into a plurality of digital samples (see page 5, lines 1-12. The method includes a digitizer for digitizing the received voice signal); encoding, via high-quality audio codec instruction running on a digital signal processor installed on the subscriber

interface line card, the plurality of digital samples (see page 5, lines 1-12. the interface line card includes a packetizer for packetizing the digitized voice signals and a controller for controlling the destination of the voice signals); converting, via conversion instructions running on the digital signal processor, the encoded plurality of digital samples into a plurality of VoATM packets (see figure 3, element 46. the interface line card converts the packets into VoATM packets).

Hjartarson discloses all the limitations of the claimed invention with the exception that the processor switches codecs automatically depending on the capability of the CPE. However, Blomfield discloses a method of substituting codecs whenever a proper compression scheme is necessitated by the system (see column 7, line 56 - column 8, line 2). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the method of negotiating codecs as taught by Blomfield-brown into the telecommunication system of Hjartarson. The motivation for combining the method of negotiating codecs as necessitated by the system and the telecommunication system of Hjartarson being that it will provide a high quality of service, improve the compression/decompression format and reduce latency.

Hjartarson in view of Blomfield discloses all the limitations of the claimed invention with the exception that the processor switches codecs automatically depending on the capabilities of the network. however, Mundra discloses a method of automatically changing codecs to improve the communication based on the network capabilities (paragraph [0023]). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the method of

automatically changing the codecs depending on the network capabilities, as taught by Mundra, into the method of Hjartarson in view of Blomfield for the purpose of improving the QOS of telecommunication.

Regarding claim 6. Hjartarson discloses a method where encoding encodes multiple channel audio (see page 5, lines 1-12. the system packetizes multiple voice signals to be transmitted to a voice network or a data network).

Regarding claims 7-13. Hjartarson discloses all the limitations of claim 1.

Hjartarson does not disclose the possibility or the necessity to automatically substitute codec instructions for the high-quality audio codec instructions based on the far-end codec capability, based on the capability of the far-end CPE's subscriber interface line card, and based on the network coupled to the subscriber interface line card. However, Blomfield-brown discloses a method of substituting codecs whenever a proper compression scheme is necessitated by the system, from the CPE's side, (see column 7, line 56 - column 8, line 2). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the method of negotiating codecs as taught by Blomfield-brown into the telecommunication system of Hjartarson. The motivation for combining the method of negotiating codecs as necessitated by the system and the telecommunication system of Hjartarson being that it will provide a high quality of service, improve the compression/decompression format and reduce latency. Moreover, Mundra discloses a method of automatically changing codecs to improve the communication based on the network capabilities (paragraph [0023]). Thus, it would have been obvious to a person of ordinary skill in the art at the

time of the invention to implement the method of automatically changing the codecs depending on the network capabilities, as taught by Mundra, into the method of Hjartarson in view of Blomfield for the purpose of improving the QOS of telecommunication.

Regarding claim 14-18. Hjartarson discloses all the limitations of claim 1.

Hjartarson does not disclose a method of signaling between the subscriber interface line card and a far-end subscriber interface line card and exchanging capability information with a far end subscriber interface line card or CPE. However, Blomfield-brown discloses a method of substituting codecs whenever a proper compression scheme is necessitated by the system (see column 7, line 47 - column 8, line 2). Blomfield-brown's system allows the SLIC to send compression format requests until the remote application accepts a compression format request. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the system of negotiating codecs format as taught by Blomfield-brown into the telecommunication system of Hjartarson. The motivation for implementing the method of negotiating codec formats between the SLIC and CPE, as taught by Blomfield-brown, into the telecommunication system of Hjartarson being that it will provide a high quality of service, improve the compression/decompression format, and reduce the latency.

Regarding claim 2 and 3. Hjartarson discloses all the limitations of claim 1.

Hjartarson does not disclose that the high quality codec instructions are compatible with ITU G and especially G.722. However, the background of Hjartarson recommends the codec instructions to be compatible with the ITU G.168 or similar standards, such as

G.722. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to modify the codec instructions of Hjartarson's method to be compatible with the ITU G or G.722. The motivation for modifying the Hjartarson's method to be compatible with the ITU G or G.722 being that it will offer lower bit-rate compressions, as well as the ability to quickly adapt to varying compressions as the network topography mutates. Moreover, the modification will offer a significant improvement in speech quality over popular codecs.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hjartarson in view of Blomfield, further in view of Mundra and further in view of Thumpudi et al (US 2005/0015259).

Hjartarson in view of Blomfield, further in view of Mundra does not disclose a codec compatible with Dolby Digital AC-3. However, Thumpudi discloses a technique where Dolby digital AC-3 codec is employed to enhance the quality of sounds (see figure 2, element 200 and see page 1 paragraph [014]). Thus, it would have obvious to the person of ordinary skill in the art at the time the invention was made to modify the codec of Hjartarson's method to be compatible with Dolby Digital AC-3. The motivation for making the codec of Hjartarson's method compatible with Dolby Digital AC-3 being that it will compress audio signals to produce a Dolby Digital sound and enhance the quality of the communication.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hjartarson in view of Blomfield, further in view of Mundra and further in view of Hashimoto et al (US 2002/0038158). Hereinafter referred to as Hashimoto.

Hjartarson in view of Blomfield, further in view of Mundra does not disclose a codec compatible with Digital Theater System. However, Hashimoto discloses a signal processing method that employs DTS audio codec (see paragraphs 004, and 122). Thus, it would have been obvious to the person of ordinary skill in the art at the time the invention was made to modify the codec disclosed in Hjartarson's method to be compatible with the DTS codec as taught by Hashimoto. The motivation for making the codec of Hjartarson's method compatible with DTS codec being that it is a representation of compression systems of audio data and linear PCM; moreover, it will provide a high quality audio and enhance telecommunication services.

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Note: the recitations "capabilities of CPE" and "capabilities of a network" are vague.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the

references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mounir Moutaouakil whose telephone number is 571-270-1416. The examiner can normally be reached on Monday-Thursday (1pm-4: 30pm) eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

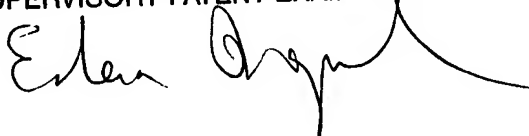
Application/Control Number:
10/748,958
Art Unit: 2619

Page 9

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MM
Mounir Moutaouakil
Patent Examiner
12-07-2007

EDAN . ORGAD
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Edan . Orgad', written over the printed name and title.